

Preparing for Public Health Infectious Disease Emergencies Including Bioterrorism

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What is a public health infectious disease emergency?

A public health infectious disease emergency occurs when a community faces serious illness due to a communicable disease *which threatens to overwhelm the public health system*. There are many examples of public health infectious disease emergencies:

- *Cryptosporidium parvum* is found in a town water supply after weeks of diarrheal illness among members of the community.
- West Nile Virus, which first appeared in the U.S. during the summer of 1999, stimulated a comprehensive public health response to prevent serious morbidity and mortality. Although no human cases were reported in Massachusetts, considerable public health efforts continue in order to educate the public and to conduct bird and mosquito surveillance.
- A single case of meningitis caused by *Neisseria meningitidis* at a college or high school requires immediate public health intervention and can cause panic among concerned parents, students and administrators.
- *Pandemic* influenza, which will occur when a highly contagious, novel strain of influenza appears and spreads around the world, will likely cause serious illness and death.

Many infectious diseases can become public health infectious disease emergencies under certain circumstances.

How common are public health infectious disease emergencies?

Infectious disease emergencies which threaten to overwhelm the public health system are rare. Of the more than 10,000 case reports of infectious disease received by MDPH annually, only a small fraction can be considered public health infectious disease emergencies. Most infectious diseases are handled routinely by health care providers, local boards of health, and the MDPH. They constitute an expected baseline rate of disease.

However, infectious disease spreading undetected or undeterred through a community—especially an easily communicable disease with high morbidity and mortality—is an emergency. The longer this type of disease goes unrecognized and untreated, the more severe the impact will be on human health.

How does a public health infectious disease emergency differ from bioterrorism?

Bioterrorism represents one type of public health infectious disease emergency. Infectious disease emergencies may occur naturally, without any intent to harm people or create fear. The ease of worldwide travel and the re-emergence of infectious diseases in more virulent forms may increase the rate of these kinds of public health infectious disease emergencies.

Bioterrorism is the intentional use of (or threat to use) biological agents like anthrax and salmonella to hurt people, create fear, and/or disrupt society. Bioterrorism is *terrorism*—a criminal act. Use of disease agents for terrorism can create an infectious disease emergency.

Has bioterrorism occurred in Massachusetts?

Yes. There have been numerous threats of bioterrorism in Massachusetts. However, upon investigation these have proved to be hoaxes. Similarly, on a national level the majority of bioterrorism incidents have been hoaxes.

Is it possible to prepare for public health infectious disease emergencies?

Yes. Public health infectious disease emergencies, including bioterrorism, may be preventable with early detection and response. Planning and communication are key. In widespread infectious disease emergencies, local communities will lead the response effort for their city or town and should expect to be self-reliant.

- **Start planning now.** Use resources, like the Local Emergency Planning Committee (LEPC), which already exist in your city or town.
- **Identify key roles and resources.** Every community should have a plan which details who does what in an infectious disease emergency. Ensure that public health and emergency responders have the latest contact information for Hazmat, Police, MEMA, MDPH and FBI, and update information monthly.
- **Develop partnerships.** Successful response to infectious disease emergencies and bioterrorism requires new and creative partnerships among first responders, emergency management, law enforcement and public health. Each of these professional groups brings important and necessary expertise to an incident. Mutual understanding of these areas of expertise will contribute greatly to a successful response.
- **Surveillance.** Local officials may be the first to suspect and/or recognize the signs of illness which may be associated with infectious disease emergencies. Identify processes and procedures for notification of MDPH and law enforcement for epidemiological and criminal investigations. Early detection and response may save lives.

Where can I find more information about infectious disease emergencies?

The Massachusetts Department of Public Health has many fact sheets available with information on infectious diseases. Please visit the MDPH website at www.state.ma.us/cdc or call (617) 983-6800

Massachusetts Emergency Management Agency (MEMA) 400 Worcester Road, Framingham MA 01702-5399
Phone: (508) 820-2000 Fax: (508) 820-2030 www.magnet.state.ma.us/mema/

Federal Emergency Management Agency (FEMA) 500 C Street, SW Washington, D.C. 20472 Phone: (202) 646-4600
www.fema.gov/index.htm

MA Dept of Fire Services/Hazmat. PO Box 1025, State Road, Stow, MA 01775 (978) 567-3100, (978) 567-3150
(Hazmat) <http://www.state.ma.us/dfs/sfmo/sfmohome.htm>

U.S. Centers for Disease Control and Prevention 1600 Clifton Rd. Atlanta, GA 30333 (800) 311-3435
<http://www.cdc.gov/>

